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In re the application of: Susan L. Acton et al.

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For: *DIAGNOSTIC ASSAYS AND KITS FOR BODY  
MASS AND CARDIOVASCULAR DISORDERS*

Attorney Docket No.: MNI-172CP2

Assistant Commissioner for Patents  
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Washington, D.C. 20231

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Signature

*Nelson F. Barros*

Nelson F. Barros

Please Print Name of Person Signing

LAHIVE & COCKFIELD, LLP  
Attorneys at Law

By

*DeAnn F. Smith*  
DeAnn F. Smith

Reg. No. 36,383

28 State Street

Boston, MA 02109

Telephone: 617-227-7400

Facsimile: 617-742-4214

## SEQUENCE LISTING

<110> Acton, Susan L.  
 Ordovas, Jose M.  
 McCarthy, Jeanette J.

<120> DIAGNOSTIC ASSAYS AND KITS FOR BODY MASS AND  
 CARDIOVASCULAR DISORDERS

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<222> (119)..(1645)

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Pro Ser Leu Ile Lys Gln Gln Val Leu Lys Asn Val Arg Ile Asp Pro  
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Gly Glu Lys Pro Gln Val Arg Glu Arg Gly Pro Tyr Val Tyr Arg Glu

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Phe	Arg	His	Lys	Ser	Asn	Ile	Thr	Phe	Asn	Asn	Asn	Asp	Thr	Val	Ser		
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ttc	ctc	gag	tac	cgc	acc	ttc	cag	ttc	cag	ccc	tcc	aag	tcc	cac	ggc	502	
Phe	Leu	Glu	Tyr	Arg	Thr	Phe	Gln	Phe	Gln	Pro	Ser	Lys	Ser	His	Gly		
115								120								125	
tcg	gag	agc	gac	tac	atc	gtc	atg	ccc	aac	atc	ctg	gtc	ttg	ggt	gcg	550	
Ser	Glu	Ser	Asp	Tyr	Ile	Val	Met	Pro	Asn	Ile	Leu	Val	Leu	Gly	Ala		
130								135								140	
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Ala	Val	Met	Met	Glu	Asn	Lys	Pro	Met	Thr	Leu	Lys	Leu	Ile	Met	Thr		
145								150								155	
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Leu	Ala	Phe	Thr	Thr	Leu	Gly	Glu	Arg	Ala	Phe	Met	Asn	Arg	Thr	Val		
165								170								175	
ggt	gag	atc	atg	tgg	ggc	tac	aag	gac	ccc	ctt	gtg	aat	ctc	atc	aac	694	
Gly	Glu	Ile	Met	Trp	Gly	Tyr	Lys	Asp	Pro	Leu	Val	Asn	Leu	Ile	Asn		
180								185								190	
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Lys	Tyr	Phe	Pro	Gly	Met	Phe	Pro	Phe	Lys	Asp	Lys	Phe	Gly	Leu	Phe		
195								200								205	
got	gag	ctc	aac	aac	tcc	gac	tct	ggg	ctc	ttc	acg	gtg	ttc	acg	ggg	790	
Ala	Glu	Leu	Asn	Asn	Ser	Asp	Ser	Gly	Leu	Phe	Thr	Val	Phe	Thr	Gly		
210								215								220	
gtc	cag	aac	atc	agc	agg	atc	cac	ctc	gtg	gac	aag	tgg	aac	ggg	ctg	838	
Val	Gln	Asn	Ile	Ser	Arg	Ile	His	Leu	Val	Asp	Lys	Trp	Asn	Gly	Leu		
225								230								235	
agc	aag	gtt	gac	ttc	tgg	cat	tcc	gat	cag	tgc	aac	atg	atc	aat	gga	886	
Ser	Lys	Val	Asp	Phe	Trp	His	Ser	Asp	Gln	Cys	Asn	Met	Ile	Asn	Gly		
245								250								255	
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Thr	Ser	Gly	Gln	Met	Trp	Pro	Pro	Phe	Met	Thr	Pro	Glu	Ser	Ser	Leu		
260								265								270	
gag	ttc	tac	agc	ccg	gag	gcc	tgc	cga	tcc	atg	aag	cta	atg	tac	aag	982	
Glu	Phe	Tyr	Ser	Pro	Glu	Ala	Cys	Arg	Ser	Met	Lys	Leu	Met	Tyr	Lys		
275								280								285	
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Glu	Ser	Gly	Val	Phe	Glu	Gly	Ile	Pro	Thr	Tyr	Arg	Phe	Val	Ala	Pro		
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Ser Ser Leu Ser Phe Asn Met Trp Lys Glu Ile Pro Ile Pro Phe Tyr
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Leu Ser Val Tyr Phe Phe Asp Val Met Asn Pro Ser Glu Ile Leu Lys
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Gly Glu Lys Pro Gln Val Arg Glu Arg Gly Pro Tyr Val Tyr Arg Glu
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Phe Arg His Lys Ser Asn Ile Thr Phe Asn Asn Asn Asp Thr Val Ser
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Phe Leu Glu Tyr Arg Thr Phe Gln Phe Gln Pro Ser Lys Ser His Gly
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Lys Tyr Phe Pro Gly Met Phe Pro Phe Lys Asp Lys Phe Gly Leu Phe
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Val Gln Asn Ile Ser Arg Ile His Leu Val Asp Lys Trp Asn Gly Leu
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Ser Lys Val Asp Phe Trp His Ser Asp Gln Cys Asn Met Ile Asn Gly
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Glu Ser Gly Val Phe Glu Gly Ile Pro Thr Tyr Arg Phe Val Ala Pro
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Cys Pro Cys Leu Glu Ser Gly Ile Gln Asn Val Ser Thr Cys Arg Phe
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 Met Trp Lys Glu Ile Pro Val Pro Phe Tyr Leu Ser Val Tyr Phe Phe  
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Leu His Phe Gln Pro Asp Arg Ser His Gly Ser Glu Ser Asp Tyr Ile	
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Ile Leu Pro Asn Ile Leu Val Leu Gly Gly Ala Val Met Met Glu Ser	
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Lys Ser Ala Gly Leu Lys Leu Met Met Thr Leu Gly Leu Ala Thr Leu	
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Ile His Leu Val Asp Arg Trp Asn Gly Leu Ser Lys Val Asn Tyr Trp	
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Gln Leu Val Leu Met Pro Gln Val Leu Gln Tyr Val Gln Tyr Val Leu 435 440 445		
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Arg Ser Gln Glu Lys Cys Phe Leu Phe Trp Ser Gly Ser Lys Lys Gly 465 470 475 480		
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&lt;212&gt; DNA

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&lt;400&gt; 5

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tggccctact gaggggtcta gtctggatgc ttccccccag gttgacttct ggcattccga 180  
tcagtgaac atgatcaatg gaacttctgg gcaaagtggg ccgcccttca tgactcctga 240  
gtcctcgctg gagttctaca gcccgagggc ctgccggtaa tcaactgggac tcggggcctc 300  
ctgggtttcc tgggtagctc atggccaaat tctgtggtgt tggctgtgca cttggaaagc 360  
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tcacaccacc aaaagc 436

<210> 11  
<211> 481  
<212> DNA  
<213> Human

<220>  
<223> All occurrences of n = any nucleotide

<400> 11  
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cgggtctggg tgtccctctc catcctgtct gtccctgca gatccatgaa gctaattgtac 180  
aaggagtcag ggggtgttga aggcattccc acctatcgct tcgtggctcc caaaacctg 240  
tttgccaacg ggtccatcta cccaccaac gaaggcttct gcccgctgct ggagtctgga 300  
attcagaacg tcagcagctg caggttcagt acgtgccgtc ccctgttctg ggatngccgg 360  
aggggtgttag gtnnngggca cctnanggtt tatctgccca atgctgtctg cttaattctct 420  
ggcctctgta ctcttgataa cccattaagc caaaaatatg atgcctctgg gacgatatct 480  
g 481

<210> 12  
 <211> 430  
 <212> DNA  
 <213> Human

<400> 12  
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 cgggggtgcc gtgcagacca cagctctgtg cagacttccg gaggggcagg acgtgccaat 120  
 atactgtcgt tgtatgatgt cccctccctg cccttggtgt aggtgcccc ttgtttctct 180  
 cccatctca cttcatcaac gccgaccgg ttctggcaga agcggtgact ggctgcacc 240  
 ctaaccagga ggcacactcc ttgttcgtgg acatccacc ggtgagcccc tgccatctc 300  
 tgtgggggggt ggggtgattcc tggttggagc acacctggct gcctcctctc tccccaggca 360  
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 gttccttact 430

<210> 13  
 <211> 390  
 <212> DNA  
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<220>  
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 ggggtggcca gtctcctcac tgtgtttgtt gccgcaggtc acgggaatcc ccatgaactg 180  
 ctctgtgaaa ctgcagctga gcctctacat gaaatctgtc gcaggcattg ggtgagtggg 240  
 gactgggaac tggggctgca ttgtcattg agagattang tgctcagtgc tccagtgttc 300  
 ccagactccc ctgacatacc ccaggaaaca gggcatgggg aaggagagg gtcctattgg 360  
 gggtggaatc cagtcctgc tgatcttctc 390

<210> 14  
 <211> 370  
 <212> DNA  
 <213> Human

<400> 14  
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taagactttg ttccaacacc tatgtcttgc ttatttccag acaaactggg aagattgagc 180  
 ctgtggctct gccgctgctc tggtttgcag aggtaagggt gcgttgggca cagcgtcggg 240  
 ggcttttgtt aatagccaat gtgggcattt gaggcaggag gcggggggag caccttgtag 300  
 aaaggagag ggctgagcca gggtaaccgg actgttacat ggaccagcgt atcatacact 360  
 tcacctgtc 370

<210> 15  
 <211> 470  
 <212> DNA  
 <213> Human

<400> 15  
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 agcctgcggc cccagctcat gtgtttgtca ttctgtctcc tcagagcggg gccatggagg 180  
 gggagactct tcacacattc tacactcagc tgggtgtgat gccaagggtg atgcactatg 240  
 cccagtacgt cctcctggcg ctgggctgcg tctgtctgct ggtccctgtc atctgccaaa 300  
 tccggagcca agtaggtgct ggccagaggg cagcccgggc tgacagccat tcgcttgctt 360  
 gctgggggaa aggggcctca gatcggaccc tctggccaac cgcagcctgg agcccacctc 420  
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<210> 16  
 <211> 450  
 <212> DNA  
 <213> Human

<400> 16  
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 ttcaacgtca actataaatt agcttgggta tcttctagga gaaatgctat ttattttgga 180  
 gtagtagtaa aaagggtca aaggataagg aggccattca ggcctattct gaatccctga 240  
 tgacatcagc tcccaagggc tctgtgctgc aggaagcaaa actgtaggtg ggtaccaggt 300  
 aatgccgtgc gctccccgc cccctcccat atcaagtaga atgctggcgg cttaaaacat 360  
 ttggggctct gctattcct tcagcctcaa cttcacctgg agtgtctaca gactgaagat 420  
 gcatatttgt gtattttgct tttggagaaa 450



<210> 17  
 <211> 544  
 <212> DNA  
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 gatagaggag gagagggagg aggagggaaa aggaagggtg aggggctcag aggggagagc 180  
 tgggaggagg ggagacatag gtgggggaag gggtaggaga aaggggaagg gagcaagagg 240  
 gtgaggggca ccaggcccca tagacgtttt ggctcagcgg ccacgaggct tcatcagctc 300  
 ccgccccaaa acggaagcga ggccgtgggg gcagcggcag catggcgggg cttgtcttgg 360  
 cggccatggc cccgccccct gcccgctcca tcagcgcccc gcccggtccc cggcccgacc 420  
 ccgccccggg cccgctcagg cccgccccct gccgcccga tcttgaagcc caaggctgcc 480  
 cggggggcgt cggcgggcgc cggcgatggg gcataaaacc actggccacc tgccgggctg 540  
 ctcc 544

<210> 18  
 <211> 190  
 <212> DNA  
 <213> Human

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 gcgcccagga acacgaggga ggccaggcgc ttcgggaggg gctgctgccc gcctccccac 180  
 caccctcacc 190

<210> 19  
 <211> 159  
 <212> DNA  
 <213> Human

<400> 19  
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<210> 20  
 <211> 162

<212> DNA  
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<400> 20  
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caagtggacg ggatggggag gctgctgact gacccccaaa cattgttccg gaagcacgca 120  
actcatagtc ggggtaagtg ctactcccaa aaaagtttgc gt 162

<210> 21  
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<213> Human

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<210> 22  
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<400> 22  
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tggtgggtgg ctttcggccc tgtgctgtct ccaccacccc ca 162

<210> 23  
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<400> 23  
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<210> 24  
<211> 162  
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tgtaagtgac tgagaacctg actcaaaccg gcttgagtga aa 162

<210> 25  
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<400> 25  
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<210> 26  
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ggcaccagct tgaattctct ttggtcacac caccaaaagc 160

<210> 29  
 <211> 161  
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 gccaaaaata tgatgcctct gggacgatat ctg 153

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<210> 41  
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<400> 41

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<210> 57

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<210> 65  
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<400> 65  
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cccatcctca cttcatcaac gctgaccgg ttctggcaga agcggtgact ggccatgcacc 240  
ctaaccagga ggcacactcc ttgttcgtgg acatccaccc ggtgagcccc tgccatcctc 300  
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gagagctgct gtgggctggg gtggtgggaa gcctggcttc tagaatctcg agccaccaaa 420  
gttccttact 430

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<212> DNA  
<213> Human

<400> 66  
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tgggaggatg aacactcttg aagttggagg agggatttta 160

<210> 67  
<211> 20  
<212> DNA  
<213> Human

<400> 67  
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<210> 68  
<211> 31  
<212> DNA  
<213> Human

<400> 68  
tgccagaacc gggtcagcgt tgaggaagtg a 31

<210> 69  
<211> 20  
<212> DNA  
<213> Human

<400> 69  
tcctcaacgc tgacccggtt 20

<210> 70  
<211> 31  
<212> DNA  
<213> Human

<400> 70  
tcacttcctc aacgctgacc cggttctggc a 31

<210> 71  
<211> 20  
<212> DNA

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<210> 72

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<212> DNA

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<210> 73

<211> 20

<212> DNA

<213> Human

<400> 73

tcatcaacgc cgacccgggtt

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<210> 74

<211> 31

<212> DNA

<213> Human

<400> 74

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<210> 75

<211> 21

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<213> Human

<400> 75

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<210> 76

<211> 31

<212> DNA

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<210> 77

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<400> 77

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 ttccccaca gggagttcag gcacaaaagc aacatcacct tcaacaacaa cgacaccgtg 240  
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 gactacatca tcatgcccaa catcctggtc ttggtgaggc tgccctgtgg ccacgcgcgc 360  
 ctgcacacct gacctcgtcc cctgtctctc ctccgcctg ccccttgtgc agagagcagt 420  
 ccctgaggtg gtcggagcgt ggggactcac gcctgggtgg tggctttcgg ccctgtgctg 480  
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agcgtgcggc cccagctcat gtgtttgtca ttctgtctcc tcagagcggg gccatggagg 180

gggagactct tcacacattc tacactcagc tgggtgtgat gccaaggtg atgcactatg 240

cccagtagct cctcctggcg ctgggctgcg tctgtctgct ggtccctgtc atctgccaaa 300

tccggagcca agtaggtgct ggccagaggg cagcccgggc tgacagccat tcgcttgctt 360

gctgggggaa aggggcctca gatcgaccc tctggccaac cgcagcctgg agcccacctc 420

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<210> 99
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<400> 99
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<400> 100
cgcagacatg agctgctccg c                                     21

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<210> 101
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aggcgcgcag acatgagctg ctccgccaaa g                               31

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<210> 103  
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aggcgcgcag acatgcgctg ctccgcaaa g 31

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<400> 106  
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<210> 111  
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